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**510(k) SUMMARY OF SAFETY AND EFFECTIVENESS**

**CADD® Medication Cassette Reservoir with Flow Stop**

**March 9, 2004**

**I. GENERAL INFORMATION**

|                                |   |
|--------------------------------|---|
| Applicant's Name and Address:  | Smiths Medical MD, Inc.<br>1265 Grey Fox Road<br>St. Paul, MN 55112 |
| Contact Person:                | Patricia A. LaForte<br>Regulatory Affairs Associate                 |
| Common/Usual Name:             | Medication Cassette Reservoir                                       |
| Proprietary Name:              | CADD® Medication Cassette Reservoir with<br>Flow Stop               |
| Equivalence Device Comparison: | CADD® Medication Cassette Reservoir                                 |

**II. DEVICE DESCRIPTION**

The CADD® Medication Cassette Reservoirs with Flow Stop are a modification to the current CADD® Medication Cassette Reservoirs. The reservoirs will incorporate a set-based free flow protection component (i.e. Flow Stop) that is designed to occlude the tube if the reservoirs are accidentally placed onto the pump incorrectly or become detached from the pump.

The Flow Stop will be located on the reservoir housing, which is attached to the pump. The reservoir will be provided to the user in an open state. Before the reservoir can be attached to the pump, the blue "CLIP" must be removed to activate the Flow Stop. However, after attaching the reservoir to the pump, the user can still remove the reservoir from the pump and prime it by holding the Flow Stop in the open position.

**III. INTENDED USE OF THE DEVICE**

The CADD® Medication Reservoirs are designed for use with the CADD® pumps (except CADD® Micro) to allow fluid delivery from a flexible container.

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**IV. DEVICE COMPARISON**

The CADD® Medication Cassette Reservoirs with Flow Stop are similar in design, function, and intended use to the current CADD® Medication Cassette Reservoirs. These sets are identical except for the addition of the Flow Stop.

The sets will incorporate a set-based free flow protection component (i.e. Flow Stop) that is designed to occlude the tube if the reservoir is accidentally placed onto the pump incorrectly or becomes detached from the pump.

**V. SUMMARY OF STUDIES**

**A. Functional Testing**

*In-vitro* testing was conducted on the CADD® Medication Cassette Reservoirs with Flow Stop.

Biocompatibility testing was performed on the new Flow Stop components.

**B. Clinical Studies**

Clinical studies were not deemed necessary regarding the CADD® Medication Cassette Reservoirs with Flow Stop due to their similarity in materials, design and function to the current CADD® Medication Cassette Reservoirs.

**C. Conclusions Drawn from the Studies**

The results of the testing indicated that the CADD® Medication Cassette Reservoirs with Flow Stop function according to specifications and the materials used in the device are biocompatible. Therefore, the product is considered acceptable for human use.

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## **510(k) SUMMARY OF SAFETY AND EFFECTIVENESS**

### **CADD® Administration Set with Flow Stop**

**March 9, 2004**

#### **II. GENERAL INFORMATION**

|                                |   |
|--------------------------------|---|
| Applicant's Name and Address:  | Smiths Medical MD, Inc.<br>1265 Grey Fox Road<br>St. Paul, MN 55112 |
| Contact Person:                | Patricia A. LaForte<br>Regulatory Affairs Associate                 |
| Common/Usual Name:             | Administration Set  |
| Proprietary Name:              | CADD® Administration Set with Flow Stop                             |
| Equivalence Device Comparison: | CADD® Administration Set  |

#### **II. DEVICE DESCRIPTION**

The CADD® Administration Sets with Flow Stop is a modification to the current CADD® Administration Sets. The sets will incorporate a set-based free flow protection component (i.e. Flow Stop) that is designed to occlude the tube if the set is accidentally placed onto the pump incorrectly or becomes detached from the pump.

The Flow Stop will be located on the set housing, which is attached to the pump. The set will be provided to the user in an open state. Before the set can be attached to the pump, the blue "CLIP" must be removed to activate the Flow Stop. However, after attaching the set to the pump, the user can still remove the set from the pump and prime it by holding the Flow Stop in the open position.

The Add-on Integral Anti-siphon Valve, which is included with current sets will not be provided with the new sets. This valve is no longer necessary because of the addition of the Flow Stop.

#### **III. INTENDED USE OF THE DEVICE**

The CADD® Administration Set is designed for use with the CADD® pumps (except CADD®-Micro) to allow medication delivery from a flexible container.

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#### **IV. DEVICE COMPARISON**

The CADD® Administration Sets with Flow Stop are similar in design, function, and intended use to the current CADD® Administration Sets. These sets are identical except for the addition of the Flow Stop and the removal of the Integral Anti-siphon Valve.

The sets will incorporate a set-based free flow protection component (i.e. Flow Stop) that is designed to occlude the tube if the set is accidentally placed onto the pump incorrectly or becomes detached from the pump.

#### **V. SUMMARY OF STUDIES**

##### **A. Functional Testing**

*In-vitro* testing was conducted on the CADD® Administration Set with Flow Stop.

Biocompatibility testing was performed on the new Flow Stop components.

##### **D. Clinical Studies**

Clinical studies were not deemed necessary regarding the CADD® Administration Sets with Flow Stop due to their similarity in materials, design and function to the current CADD® Administration Sets.

##### **E. Conclusions Drawn from the Studies**

The results of the testing indicated that the CADD® Administration Sets with Flow Stop function according to specifications and the materials used in the device are biocompatible. Therefore, the product is considered acceptable for human use.

**DEPARTMENT OF HEALTH & HUMAN SERVICES**

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

**MAY 19 2004**

Ms. Patricia A. LaForte  
Regulatory Affairs Associate  
Smiths Medical MD, Incorporated  
1265 Grey Fox Road  
St Paul, Minnesota 55112

Re: K040636

Trade/Device Name: CADD® Administration Set with Flow Stop

CADD® Medication Cassette Reservoir with Flow Stop

Regulation Number: 880.5440

Regulation Name: Intravascular Administration Set

Regulatory Class: II

Product Code: FPA

Dated: March 9, 2004

Received: March 10, 2004

Dear Ms. LaForte:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4618. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address  
<http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,



Chiu Lin, Ph.D.

Director

Division of Anesthesiology, General Hospital,  
Infection Control and Dental Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K040636

Device Name: CADD® Medication Cassette Reservoir with Flow Stop

CADD® Administration Set with Flow Stop

### Indications For Use:

"The CADD® Medication Cassette Reservoir with Flow Stop is designed for use with the CADD® pumps (except CADD-Micro® and CADD-TPN®) for delivery of medications and fluids."

"The CADD® Administration Set with Flow Stop is designed for use with the CADD® pumps (except CADD-Micro® and CADD-TPN®) for delivery of medications and fluids."

Prescription Use   X  

AND/OR

Over-The-Counter Use

(Part 21 CFR 801 Subpart D)

(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF  
NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

Anthony Brown  
(Division Sign-Off)  
Division of Anesthesiology, General Hospital,  
Infection Control, Dental Devices

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